

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-18, 20-31, and 36 are pending in this case. Claims 1, 13, 18, 20, and 31 are amended by the present amendment and add no new matter. For example, amended Claims 1, 13, 18, 21, and 31 are supported by the specification at page 7, lines 1-9 and page 9, line 33 to page 10, line 2.

In the outstanding Office Action, Claims 1-5, 7-9, 11-14, 18, 20-24, 26-28, 30, 31, and 36 were rejected under 35 U.S.C. §102(e) as anticipated by Chuprun et al. (U.S. Patent No. 6,115,580, hereinafter “Chuprun”); Claims 6 and 25 were rejected under 35 U.S.C. §103(a) as unpatentable over Chuprun in view of Pelech et al. (U.S. Patent No. 6,243,585, hereinafter “Pelech”). Claims 10 and 29 were rejected under 35 U.S.C. §103(a) as unpatentable over Chuprun in view of Jennings, III (U.S. Patent No. 6,173,191, hereinafter “Jennings”). Claims 15-17 were rejected under 35 U.S.C. §103(a) as unpatentable over Chuprun in view of Feng (U.S. Patent No. 5,374,936).

With regard to the rejection of Claim 1 as anticipated by Chuprun, that rejection is respectfully traversed.

Amended Claim 1 recites:

performing a measurement phase in which a calibration signal is successively broadcasted by each network device and in which all respective other network devices receiving said calibration signal directly from a broadcasting network device measure the received signal quality;

performing a reporting phase in which ***a reporting control signal is broadcasted by a network device*** creating said topology map to each other network device and in which the measurement results are directly wirelessly transmitted from each other network device receiving said reporting control signal to the network device creating said topology map;

performing a creating phase in which said topology map of the network is created within the network device

creating said topology map solely on a basis of all received measurement results; and
performing a transmission phase in which ***said network device creating said topology map transmits at least part of said topology map to the other network devices.***

The outstanding Office Action cited the abstract, column 2, lines 1-14, column 3, lines 45-50, and column 6, lines 22-32 of Chuprun as describing “performing a measurement phase” as recited in Claim 1.¹ In fact, column 6, lines 22-26 of Chuprun was cited as describing “performing a reporting phase” and “performing a creating phase” as well.

However, Chuprun only discloses that a link quality determination indicating the quality of connectivity is created in a wireless network and that this link quality determination is transmitted by the network device creating the determination to all other network devices. Chuprun does not describe broadcasting a ***calibration signal by each*** network device and that ***all*** respective other network devices measure the received signal quality and create a measurement signal.

The outstanding Office Action appears to regard the transmitted link quality determination as a “calibration signal.” Assuming *arguendo* this comparison is correct, Chuprun cannot then describe “performing a transmission phase” as defined in Claim 1 if the transmitted link quality determination is considered the transmission of a “calibration signal,” as no further transmission by the network device generating the link quality determination is described by Chuprun.

Further, Chuprun does not disclose a reporting signal which is broadcasted from a network device creating a topology map and a transmission of the measurement results by ***all*** other network devices receiving the reporting signal. Therefore, Chuprun does not describe “performing a reporting phase” as defined in Claim 1.

¹See the outstanding Office Action at page 3, lines 1-4.

Finally, Chuprun does not describe creating a topology map *solely* on basis of all received measurement results. In this regard, in Chuprun the link quality determination is created based on terrain information and knowledge of the locations of the network devices. In Chuprun location information is particularly stored in latitude and longitude coordinates and is obtained from a geolocation unit including a global positioning system in a preferred embodiment. By contrast, the claimed invention does not need any geolocation information because the topology map is created solely on basis of the received quality measurement results *without* any terrain information.

Whereas in Chuprun only one signal, namely the signal comprising the link quality determination is transmitted by the network device creating the link quality determination, in the claimed invention first of all a calibration signal is broadcasted by each network device, then a reporting control signal is transmitted by the network device creating the topology map, and after receiving the measurement signals the topology map is transmitted. Chuprun only describes a single transmission of a link quality determination. Accordingly, Chuprun does not teach or suggest “performing a creating phase” or “performing a measurement phase” asserted by the outstanding Office Action.

Thus, since Chuprun does not teach or suggest each and every element defined in Claim 1, Claim 1 (and Claims 2-12 dependent therefrom) is not anticipated by Chuprun and is patentable thereover.

Claim 13 recites in part:

means for broadcasting a calibration signal directly to the other network devices;

means for measuring a power level of calibration signals received directly from a broadcasting network device;

means for internally storing results of said measurement;

means for receiving a reporting control signal transmitted by a network device creating said topology map;

means for directly wirelessly transmitting said measurement results *to another network device*; and

***means for receiving at least part of said topology map
transmitted from said network device creating said topology
map.***

As noted above, Chuprun does not teach or suggest broadcasting or measuring a power level of a calibration signal, receiving a reporting control signal, **and** receiving at least part of a topology map, as Chuprun only describes transmitting a single link quality determination. Thus, it is respectfully submitted that Chuprun does not teach or suggest “means for broadcasting,” “means for measuring,” and “means for receiving” as defined in amended Claim 13. Consequently, it is respectfully submitted that amended Claim 13 (and Claims 14-17 dependent therefrom) is also patentable over Chuprun.

Amended independent Claims 18, 20, and 31 recite similar elements to Claim 1. Accordingly, Claims 18, 20, and 31 (and Claims 21-30 dependent therefrom) are patentable over Chuprun for at least the reasons described above with respect to Claim 1.

With regard to the rejection of Claims 6 and 25 as unpatentable over Chuprun in view of Pelech, it is noted that Claims 6 and 25 are dependent from Claims 1 and 20, respectively, and thus are believed to be patentable for at least the reasons discussed above with respect to Claim 1. Further, it is respectfully submitted that Pelech does not cure any of the above-noted deficiencies of Chuprun. Accordingly, it is respectfully submitted that Claims 6 and 25 are patentable over Chuprun in view of Pelech.

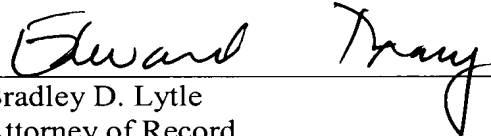
With regard to the rejection of Claims 10 and 29 as unpatentable over Chuprun in view of Jennings, it is noted that Claims 10 and 29 are dependent from Claims 1 and 20, respectively, and thus are believed to be patentable for at least the reasons discussed above with respect to Claim 1. Further, it is respectfully submitted that Jennings does not cure any of the above-noted deficiencies of Chuprun. Accordingly, it is respectfully submitted that Claims 10 and 29 are patentable over Chuprun in view of Jennings.

With regard to the rejection of Claims 15-17 as unpatentable over Chuprun in view of Feng, it is noted that Claims 15-17 are dependent from Claim 13, and thus are believed to be patentable for at least the reasons discussed above with respect to Claim 13. Further, it is respectfully submitted that Feng does not cure any of the above-noted deficiencies of Chuprun. Accordingly, it is respectfully submitted that Claims 15-17 are patentable over Chuprun in view of Feng.

Accordingly, the pending claims are believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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